

WHAT IS CLAIMED IS:

1. A method, comprising:
generating a block-level write operation, wherein the block-level write operation causes a value to be written to a primary volume; and
generating information indicative of whether any of the block-level write operation should be transferred to a secondary site during replication of data in the primary volume.
2. The method of claim 1, wherein
the block-level write operation and the information are generated by a file system.
3. The method of claim 1, wherein
the information indicates that the block-level write operation should not be transferred to the secondary site.
4. The method of claim 3, wherein
the block-level write operation modifies correctable metadata.
5. The method of claim 3, wherein
the block-level write operation modifies non-essential metadata.
6. The method of claim 1, wherein
the information indicates that less than all of the block-level write operation should be transferred to the secondary site, and
the block-level write operation comprises a command, addressing information, and the value to be written to the primary volume.
7. The method of claim 6, wherein
the information indicates that logical information associated with the block-level write operation should be transferred to the secondary site instead of transferring the value, and

the logical information identifies a source address, from which to read the value, and a length of the value.

8. The method of claim 7, further comprising:
reading the value from the source address on a secondary volume comprised in the secondary site; and
writing the value to the destination address on the secondary volume.

9. The method of claim 6, wherein
the block-level write operation is being performed to modify fewer than all units of metadata in a group of metadata addressed by the block-level write operation, and
the information indicates that new values of only certain units of metadata in the group of metadata should be transferred to the secondary site.

10. The method of claim 9, further comprising:
transferring less than all of the block-level write operation to the secondary site; and
updating only the certain units of metadata on a secondary volume comprised in the secondary site.

11. The method of claim 1, further comprising
receiving the block-level write operation and the information; and
transferring less than all of the block-level write operation to the secondary site in response to the information.

12. A method, comprising:
receiving a block-level write operation to a primary volume and associated information,
in response to the associated information, determining that less than all of the block-level write operation should be transferred to a secondary site during replication of data in the primary volume.

13. The method of claim 12, wherein
the associated information indicates that none of the block-level write
operation should be transferred to the secondary site.
14. The method of claim 12, wherein
the associated information indicates that less than all of the block-level write
operation should be transferred to the secondary site, and
the block-level write operation comprises a command, addressing information,
and a new value of data identified by the addressing information.
15. The method of claim 14, wherein
the associated information indicates that logical information associated with
the block-level write operation should be transferred to the secondary
site instead of transferring the new value of the data identified by the
addressing information.
16. The method of claim 15, further comprising:
reading the new value from a source address on a secondary volume
comprised in the secondary site; and
writing the new value to a destination address on the secondary volume,
wherein
the logical information comprises a length of the new value, the source
address, and the destination address.
17. The method of claim 12, further comprising:
transferring less than all of the block-level write operation to the secondary
site in response to the determining that less than all of the block-level
write operation should be transferred to the secondary site.
18. A system comprising:
a processor; and
a memory coupled to the processor, wherein the memory stores program
instructions executable by the processor to:

generate a block-level write operation, wherein the block-level write operation causes a value to be written to a primary volume, and generate information indicative of whether all of the block-level write operation should be transferred to the secondary site during replication of data in the primary volume.

19. The system of claim 18, wherein the information indicates that none of the block-level write operation should be transferred to the secondary site.

20. The system of claim 18, wherein the block-level write operation comprises a command, addressing information, and the value, and the information indicates that less than all of the value should be transferred to the secondary site.

21. A system comprising:
a processor; and
a memory coupled to the processor, wherein the memory stores program instructions executable by the processor to:
receive a block-level write operation to a primary volume and associated information, and
in response to the associated information, determine that less than all of the block-level write operation should be transferred to a secondary site during replication of data in the primary volume.

22. The system of claim 21, wherein the program instructions are executable by the processor to:
transfer less than all of the block-level write operation to the secondary site in response to determining that less than all of the block-level write operation should be transferred.

23. A computer readable medium comprising program instructions executable to:
- generate a block-level write operation, wherein the block-level write operation causes a value to be written to a primary volume, and
 - generate information indicative of whether all of the block-level write operation should be transferred to a secondary site during replication of data in the primary volume.
24. The computer readable medium of claim 23, wherein the information indicates that none of the block-level write operation should be transferred to the secondary site.
25. The computer readable medium of claim 23, wherein the block-level write operation comprises a command, addressing information, and the value, and the information indicates that less than all of the value should be transferred to the secondary site.
26. A computer readable medium comprising program instructions executable to:
- receive a block-level write operation to a primary volume and associated information, and
 - in response to the associated information, determine that less than all of the block-level write operation should be transferred to a secondary site during replication of data in the primary volume.
27. The computer readable medium of claim 26, wherein the program instructions are executable to:
- not transfer any of the block-level write operation to the secondary site during replication if the associated information indicates that none of the block-level write operation should be transferred.

28. The computer readable medium of claim 26, wherein the program instructions are executable to:

transfer less than all of the block-level write operation to the secondary site if the associated information indicates that less than all of the block-level write operation should be transferred.

29. The computer readable medium of claim 28, wherein the program instructions are executable to:

in response to the associated information, transfer logical information associated with the block-level write operation to the secondary site instead of transferring a new value of data being modified by the block-level write operation.

30. A system comprising:

means for generating a block-level write operation, wherein the block-level write operation causes a value to be written to a primary volume, and
means for generating information indicative of whether all of the block-level write operation should be transferred to a secondary site during replication of data in the primary volume.

31. A system comprising:

means for receiving a block-level write operation to a primary volume and associated information, and
means for determining, in response to the associated information, that less than all of the block-level write operation should be transferred to a secondary site during replication of data in the primary volume.